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ABSTRACT

This paper describes and interprets an action research project that supported student teachers learning to teach physical education in a community-based, after-school games program. Ten student teachers taught 10 lessons to elementary school children, under the guidance of 3 supervisory teachers, who were graduate students, and one program coordinator; student teachers and supervisors operated under a team teaching approach. A cultural circle of student teachers and their supervisors met once a week to discuss the lessons; minutes were taken from each meeting and assembled into a journal. Discussion ranged from student reliance on supervisors to lead the lesson to student thoughts on how the lessons should be supervised. Lessons focused on sports such as soccer, tennis, volleyball, and football, but were modified according to the pupils' abilities and based on thematic concerns, such as possession, change of direction, and consistency. The action research process consisted of plan, act and observe, reflect, then replan. Findings highlighted the difficulty between student teachers and supervisors as to who would/should lead the lesson. Group agreement determined that the student should have ownership of the lesson, while the supervisor was responsible for its quality. The action research process helped both students and supervisors move from a technical phase to a practical phase to an emancipatory phase where students became supervisors in their own lessons. The action research process permitted the new teaching knowledge of the students to be grounded within the community of discussants. (Contains 40 references.)
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Learning to teach games for understanding: Coming to know the action research process

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Learning to teach games for understanding: Coming to know the action research process

Action research guided the development of an after school community-based physical education programme. Student-teachers, supported by supervisory teachers, taught 10 lessons to elementary school children. A cultural circle (Freire, 1982) made up of student-teachers and supervisory teachers met once a week. The group's thematic concern was 'effective teaching of games in physical education.' The conversation at meetings developed from student-teachers' reliance on supervisors to lead the teaching of lessons, to the student-teachers' teaching and guiding how lessons would be supervised. The description of the study is based on Tripp's (1982) three forms of action research projects, (i) a technical form where student-teachers learnt to manage a class, (2) a practical form where student-teachers took responsibility for lesson planning, teaching and what an observer focused upon, and (3) an emancipatory form where student-teachers supervised inexperienced university students teaching games in their class.

INTRODUCTION

The purpose of this paper is to describe and interpret an action research project initiated to support student-teachers learning to teach physical education in a community based, after school, games programme. The student-teachers were supervised by graduate students. The action research group was comprised of ten student-teachers, three supervisors (graduate students with teaching experience), and one programme co-ordinator (lecturer at the university). In the community program eight separate courses were taught. Each course focused on recognized games such as soccer, tennis, volleyball, football, but in modified form related to the ability of the pupils and based on thematic concerns such as possession in games, change of direction to invade an opponents territory and consistency in court games.

The supervisory teachers had strong content knowledge developed from experiences teaching children. They had developed a reputation within the institutions where they taught for being

excellent physical educators. As indicated by Rovegno (1992a) these teachers "described their goals for helping pupils beneath surface-level knowledge of facts and formulas to the understanding of deeper meanings of concepts and the processes of coming to know in a discipline" (p. 253). When teaching the supervisory teachers seemed to have knowledge that related to what children were doing and were therefore able to challenge the children's learning in the cognition, psychomotor, social and affective learning domains. Conversely the student-teachers content knowledge was only at a surface level, at a level of a label that had no experiential meaning. From initial teaching experiences in a university based children's activity programme, the student-teachers had the reputation of being enthusiastic about teaching physical education, but having a tendency, which they acknowledged, for leading children from one activity to another in the hope that exposure would facilitate child learning. This comparison is similar to the research comparing experts and novices. Novices tended to have knowledge structures that were surface-level, and less differentiated, expert teachers' knowledge of pupils, classroom events, and subject matter, was broader, deeper, more complex, more differentiated, and more integrated (Carter, Sabers, Pinnegar, & Berliner, 1987; Griffey & Housner, 1991; Kagan, 1992; Peterson & Comeaux, 1987; Rovegno, 1992a; Rovegno, 1992b). The difference between novice and expert teacher is associated with experience. However, do all experienced teachers naturally become experts?

The comparison between novice and expert suggests the possible direction of knowledge development but we know little about how teachers content knowledge is acquired. To inform our understanding of how content knowledge is acquired by student-teachers this paper will describe an action research project with student-teachers learning to teach physical education to different groups of children.

Criteria for interpreting action research

Action research is an ongoing process in which practitioners develop their practice collaboratively with other practitioners. The phases of action research include the development of a **plan** designed to realize teacher intents and to respond to concerns from previous lessons. As the

teacher **acts** the plan it is **observed** by a colleague. The lesson is then **reflected** upon by the teacher and the observer based on the circumstances of the lesson. This information is used to **re-plan** for the next lesson. This re-planning phase may involve a revised plan based on previous intents or concerns, or a new plan based on new concerns. The process, though logically simple, creates many difficulties. For example, who decides who monitors a teacher's lesson? What does the observer see and not see? How should the observer's observations be recorded? In the process of evaluating the lesson, which perspective dominates, that of the teacher or that of the observer? What embedded assumptions of effectiveness are in the observer's or teacher's perspectives on a situation? These questions revolve around the clarification of what constitutes knowledge of effective teaching. Since being recognized by the work of Kurt Lewin in the 1940's, action research has claimed to improve practice through the use of collaborative endeavours. However, the improvement of both practice and the understanding of practice by practitioners is difficult to show and is arguably only an improvement based on the judgements of a person with authority, a person seen as having the knowledge of effective teaching.

There has been much controversy surrounding the constitution of action research. The essence of action research is the voluntary involvement and improvement in practice by a participant. As Tinning (1992a, p.206) has explained, unlike traditional positivistic research, action research does not foreground prediction and control. The concern of action research with improvement of personal practice also contrasts it from purely descriptive, naturalistic forms of research. It is this participant improvement of personal practice which is essential to action research and is known as praxis. Praxis refers to reflection in practice where an individual construes a more enabling sense of the reality of his or her own existence and the existence of others. Praxis enables individuals to reflect on their practice by use of a variety of perspectives. Through practitioners' dialogue perspectives are shared that continuously develop mutual understandings that serve to liberate practitioners from the constraints that limit their practice.

In an attempt at clarification Kemmis and McTaggart (1982) state that for research to be considered as action research the following criteria must be met:

1. the improvement of practice

2. the improvement...of the understanding of the practice by its practitioners, and

3. the improvement of the situation in which the practice takes place. (p. 84)

For this criteria to be met, practitioners must develop a particular sense of knowledge about their practice. As Tinning (1992b) comments referring to Habermas (1973),

> An essential tenet of Habermas's theory is the rejection of the idea that knowledge is produced by some kind of disinterested, pure intellectual act. Knowledge, he contends, is never the outcome of thinking that is detached from everyday concerns. On the contrary knowledge is always constituted on the basis of the natural needs and interests of humans that have been shaped by particular social and historical conditions. According to Habermas, human knowledge is organized by virtue of three spheres of human interest, which he labels the technical, the practical, and the emancipatory. (p. 3)

These distinctions of knowledge can inform us as to the characteristics of action research based on the interests of participants. To a large extent the interest of participants is defined by their position of responsibility, both actual and desired. Therefore, authority (as in the position of power in a relationship) is important in understanding the different characteristics of action research. To understand this, Tripp (1990, p. 12) based on Habermas's theory on knowledge has classified three types of action research: technical, practical and emancipatory.

- In technical action research an expert directs others. This form of action research uses a tested solution, usually developed by the leader of the project, that practitioners apply in an unproblematized way in different contexts. Success is based on how well the practitioners understand and implement the tested solution. The belief is that any failure of the solution is a result of the inexperience of the practitioners. The expert judges whether the solution has been implemented successfully. The participant is interested in being told the most effective method to use. Like a technician he or she efficiently implements the instructions.
- Practical action research is self-directed by the practitioners involved. The underlying assumption is that the practitioners have autonomy over the conception of problems and

implementation of possible solutions. The facilitator of the action research plays a Socratic role in providing a sounding-board against which practitioners try out ideas, a supportive arena to question personal assumptions and time to engage in self-reflection with others in similar situations. The belief is that any success or failure is relative to the personal aspirations of the practitioner and are part of the developmental process of becoming a better practitioner. The interest of the participants is in subjective meanings that inform and guide practical judgment.

- Emancipatory action research is also self-directed but with a goal of overcoming inequality and injustice. The aim is to go beyond the constraints of the situation to understand the social, political and economic conditions that cause and allow the meanings in the situation that houses the practitioner's practice. The aim is then to change the constraints of the situation to allow practitioners to develop their practice. Success is based on realizing more just and equitable conditions for those involved. Failure is based on the inability to realize and address social injustices. The interest of the participants is to over-come oppression and injustices through reflective criticism.

Tinning (1992a) notes that within physical education there have been few reported action research studies[1]. This could be partially due to physical education research relying on a positivistic approach to give authority and credibility to research findings. Such approaches offer evidence to support theories developed by a researcher and imposed upon a culture. In recent times more interpretative research in physical education has devoted itself, and rightly so, to describing and revealing inequalities and injustices practiced in the field of physical education (Evans, 1988; Evans & Davies, 1986; Laws, 1994; Sparkes, 1992). However, very little research in physical education has sought to help particular student-teachers learn how to improve their teaching of games to children in a specific school. By focusing on student-teachers' ability to direct and monitor the progress of an action research project a more liberating form of teacher education that developed "professional knowledge as that which is embedded within action itself"

[1] See Martinek & Butt (1988) as an example of a technical form of action research. See Almond (1983) as a practical form of action research. See Tinning (1987) for an example of a emancipatory form of action research.

was sought (Tinning, 1986, p. 116). By embedding professional knowledge within action itself the participants in the research process become owners of the knowledge. They have to determine the direction knowledge will take them, the form knowledge will take, and the way in which knowledge will become validated. This means that a person with experience (expert) may have more knowledge but for a person without experience (novice) to share and develop this knowledge he or she has to recognize the need and the appropriateness of the knowledge. This means that knowledge has to be learnt from situations, not imposed by a well meaning 'expert'. In a sense by embedding professional knowledge within practice an expert supports and guides the novice as he or she learns from mistakes and successes developing a personal knowledge base.

The purpose of the action research group was to examine and enable the effective teaching of games for student-teachers in extra-curricular sessions. A secondary purpose that developed was the evolvement of the relationship between the supervisors and the student-teachers. The aim of this relationship was to enable the student-teachers to self-direct their own development into effective teachers of games.

After reporting on the action research process, connections will be made to the criteria outlined by Kemmis and McTaggart (1982), and the characteristics outlined by Tripp (1990). In an attempt to increase understanding of this action research project the process has been described using a realist tale (Van Maanen, 1988, p. 45), woven with confessional notes (Van Maanen, 1988, p. 73) from myself as a supervisory teacher (see sections in italic). It is hoped, as advocated by Sparkes (1995), that these personal insights will help the reader position the author in the construction of the text, allowing the reader to make more informed judgements on the text.

THE ACTION RESEARCH PROCESS

Each week student-teachers and supervisors attended an action research meeting. Each participant received a summary of the minutes taken at the previous meeting before starting the current meeting. The action research process followed the stages of PLAN, ACT & OBSERVE, REFLECT then RE-PLAN as advocated by Kemmis and McTaggart (1988). This process did not

always offer clear evidence upon which to make judgments. In reality, common problems between classes did not afford simple solutions. Group discussions developed many possible solutions but it became apparent to the action research group that problems and solutions were slippery and difficult things to pin down. With the courses involving different teachers, supervisors and children of varying ages and backgrounds it was not surprising that collecting clear empirical evidence was difficult. The most useful data came from anecdotal stories arising from the teaching experiences of the participants. The stories not only captured contextual information but indicated possible cause-effect relationships taking place in the teaching situations.

Subjects and Procedure

The supervisors and student-teachers entered into situations that were new to both. Before the first lesson the supervisors and the student-teachers agreed to operate a team-teaching process where the supervisor was the initial teacher. The student-teacher would take more responsibility in subsequent lessons. Though the intent of the exercise was for the student-teachers to improve their ability to teach physical education, the most important focus was the quality of the lessons for the pupils.

To understand what constituted a quality lesson the supervisors and student-teachers engaged in close dialogue before and after each lesson and attended weekly meetings involving all the participants of the action research project. The group construed a quality lesson as having high activity levels requiring problem solving skills in relation to physical challenges, and resulting in enjoyment from personal achievement.

Each course involved ten classes made up of children aged 7-9 or 10-12. Class sizes ranged from 10 to 26 pupils. These children paid a nominal fee to attend the sessions. The children were not particularly accomplished at physical activity and varied considerably in physical ability. Weekly classes ran for one hour after school for a ten week period.

Data Sources

Minutes from the weekly meetings fed into a journal kept by one of the supervisors. This supervisor kept minutes of the group's meetings by recording significant ideas developed by the

group and relevant quotes from individuals. The minutes maintained the focus of the conversation from previous meetings and helped to clarify philosophical beliefs that provided the foundation for the group's practices. The journals followed a format suggested by Altrichter et al. (1993) where recorded observations (written text or diagrams) were organized into theory or hypothesis notes, methodology notes and planning notes. As they remark the journal is,

> a companion to the whole research process...keeping a journal can facilitate observation, documentation, and reflection on current and past experiences, including one's life history and social, historical, and educational conditions that usher in the present. (p. 10-11)

The supervisor's journal enabled ideas from the meetings and teaching episodes to be recorded and brought to the group's attention at the weekly meetings. In writing the journal the supervisor provided a narrative of the group's evolving ideology on effective teaching of games.

Another data source included notes made during lessons by a supervisor acting as a participant observer, team teacher or observer. As the student-teachers became more confident and showed better general teaching abilities, these observations became more focused. Student-teachers often requested that these observations be focused on certain elements of a lesson or a particular pupil's behaviour. The supervisors used data collection techniques such as 1) pattern analysis[2], 2) coding of motor engaged time[3], 3) qualitative comparison of skill performance among children, 4) description of the impact of questioning on pupil behaviour and the effect of pupil demonstrations on class activity and 5) observational notes of teacher and pupil actions during a lesson. This information enabled participants to better perceive and understand the world to which they were relating when engaged in the act of teaching. This variety of data collection techniques gave different perspectives on a lesson that developed a sense of praxis for the participants.

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2 Theses are forms of interaction that occur repeatedly (Altrichter et al. 1993, p. 134). In this study it refers to the input of the teacher and response of the pupils in relation to explanations, feedback, use of demonstrations and questions.

3 Motor engaged time refers to an analysis of the time spent by the pupil performing and the time spent by the teacher explaining and organizing.

Data Analysis

Data was analyzed based on Spradley's (1980) "Developmental Research Sequence." Initially, domains were constructed that reflected observations from lessons, and theory or hypothesis notes, methodology notes and planning notes from meetings. The domains became more focused as more of the lessons were taught by student-teachers and the student-teachers had a larger input into group discussion at meetings. As domains became more focused a clearer sense of the meaning for actions, words and objects used in lessons became evident. These domains grew into taxonomic maps that linked like terms creating cultural domains common to all the supervisors and student-teachers. These cultural domains were contrasted creating the themes of the study. The themes represent the phases of development for the action research group.

THE RESULTS: A RE-PRESENTATION OF THE PROCESS

The action research cycles evolved in three phases. Each phase consisted of a number of cycles of the action research process (plan, act/observe & reflect)[4]. Although these phases resulted in the growth of knowledge and understanding of teaching for the action research group, individuals within the group did not uniformly appear to be at the same level of teaching understanding, but all displayed progress in becoming more responsive to the needs of the children. To assist the reader in recognizing the relationship between **plan, act/observe, reflect** and re-**plan**, these aspects in each cycle have been highlighted in brackets.

Phase 1: Defining role expectations and recognizing "teachable moments."

Cycles 1 and 2 -- Acquiring knowledge of pupils and defining teaching role

For the student-teachers.

Through initial conversations between the supervisors and the student-teachers it was decided that the first two lessons would be team-planned and team-taught. It was understood that the

[4]These phases were connected to those highlighted by Kagan's (1992) comprehensive study of 40 learning-to-teach studies where generally novice teachers went from learning their role as they familiarised themselves with the nature of children, to then acquiring procedural skills related to the context and finally developing problem solving skills to adapt to the needs of the situation.

student-teachers gradually take more responsibility for the teaching of lessons (**plan**). Lesson appraisals negotiated by the supervisory and student-teachers from the first two lessons focused upon: (1) student-teachers' concerns about the control of groupings, (2) transitions between activities, (3) establishment of fair and manageable discipline, and (4) degree of explanation needed in their lessons (**act/observe**). The group felt these were predictable observations which needed the benefit of being experienced to be realized (**reflect**). Student-teachers planned to be clearer in their preparation for organizing pupils, to ensure that activities flowed in a meaningful way, to keep explanations simple, and to get activities going and then respond to what the children did (**plan**). Lessons flowed better as a result of these plans. However, supervisors noted that the student-teachers tended to "tell" the children too much in an attempt to define exactly what should happen so that the children would not make mistakes (**act/observe**). This problem was seen as a natural development relating to the student-teachers' desire to maintain control because of their nervousness in teaching situations. With practice and guidance from the supervisors it was felt that "telling teaching" would evolve into more "enabling teaching" (**reflect**).

For the supervisory-teachers.

The team teaching situation resulted in supervisors teaching a majority of the lessons despite their intent to give student-teachers a dominant role (**act/observe**). The action research group decided that this occurred because the supervisors had a strong influence on lesson planning, a clear idea of what was expected, and a genuine enjoyment of teaching (**reflect**). The response to this situation was the establishment of a system for supervisors to use before taking over the teaching of a lesson (**plan**). This system had three categories of supervisory involvement in teaching. Supervisors (1) prompted the student-teacher with alternative ideas, (2) requested to input into the lesson, or (3) led a short teaching stint, returning the teaching role to the student-teacher when possible. These categories gave ownership of the teaching process to the student-teacher but responsibility for the effectiveness of the lesson to the supervisor.

From these first cycles the roles of the supervisors were clarified and the student-teachers saw ways in which to improve their teaching. It was important that the group defined these roles after

the experience of teaching. This meant that the roles were agreed upon based on the reality of teaching with two people, not imposed by me as a supervisor andthe co-ordinator of the action research project.

Cycle 3 -- Recognizing supervisor's use of 'teachable moments'

When supervisors prompted student-teachers it was usually to encourage them to use pupils names with general and specific feedback when pupils were on task, or suggestions such as changing partners because pupils were messing about. Prompts such as these helped the student-teachers to get lessons flowing. However, student-teachers noticed that when supervisors took over the teaching it was in response to something happening in the class and not what was in the lesson plan (**act/observe**). This form of improvised teaching became known as responding to 'teachable moments.' When the supervisors taught, the children responded enthusiastically to the teaching. The student-teachers wanted to do the same form of teaching but felt unable to improvise (**reflect**). The anecdote that follows is constructed from an account by a supervisor and student-teacher of an ethical takeover following the recognition of a 'teachable moment.'

> Throughout the whole game Emily never smiled. She did as asked, but showed no emotion. She never made an effort to get a partner; Emily always needed a partner assigned.
>
> In the tennis-type lesson the student-teacher had started the children were in partners trying to keep a ball bouncing by hitting it up into the air. There was a tendency to whack the ball, not control it as the student-teacher had instructed. Circulating throughout the class the supervisor sensed the need for a class focus. The children were exploring the equipment playfully, but now it was becoming "whack" a ball, especially with the boys. Just then a ball hit the roof ricocheting off two pupils. The student-teacher was absorbed with helping one particular child so the supervisory teacher coached the whole class.
>
> "Try not to swing aimlessly — get beneath the ball and hit up and to your partner." The supervisor spoke as the class played. "Good Jason."
>
> "Bend your knees Emily; good, well done, you kept that going. That's it, Dawn."
>
> In an improvised moment the supervisor stopped the class.

"Now most of you are having a tendency to hit the ball too hard." He started. "The idea is to see how many hits you can keep the ball going for with your partner..." As if a natural progression he continued; "now watch Emily and me..."

There was a surprised shock. Giggles and muted whispers prophesied imminent disaster.

"Now hit the ball up Emily." The supervisor encouragingly looked at Emily. His eyes communicated confidence. As if hypnotized she obediently responded. The ball bounced and the supervisor responded, cueing Emily to hit the next. An impressive rally of 12 hits was demonstrated; the supervisor caught the twelfth hit. More were possible.

"Now see if you can match Emily." The supervisor challenged the class. "Try to bend your knees like Emily," he emphasized.

The class rushed to try.

"Thank you Emily." The supervisor patted her back sensing a hint of a smile.

The ability to respond to the 'teachable moment' as exhibited by the supervisor in this previous anecdote became an indicator of a successful teaching episode. Responding to what children are doing with the material of the lesson implies that teachers give the children credit for having abilities. In this sense, learning came from an appreciative relationship quality existing between teacher and pupil. Schön (1987) noted this form of responding as a "reflective conversation with the situation" (p.31). Within the story Emily could have failed to hit the ball up, but the supervisory teacher sensed an opportunity to inspire Emily and to teach the class of children.

Both student-teacher and supervisory teacher told stories similar to this one to the rest of the group. It is my opinion that the sharing of such stories enabled the group members to partake in each others reality of teaching. This sharing strengthened the group's belief that they were learning how to teach games more effectively.

The supervisors found it difficult to tell the student-teachers how to recognize and respond to a 'teachable moment'. Their feeling was that this would come with experience (**reflect**). The group

sought to realize 'teachable moments' by getting the children to engage enthusiastically in tasks, then to respond to what the children did (**plan**).

By the third group meeting the student-teachers were focused on the question "how do you get children to 'buy-in' to what you are teaching?" The student-teachers planned progressions in their lesson but also tried to respond to what the children did within their lesson. This question seemed to represent the desire of the action research group.

Phase 2: A practical theory for games teaching

Cycle 4: Game vocabulary

Lessons by student-teachers tended to follow a pattern — a warm-up activity with a body management focus, a skill development segment to teach a skill or set of related skills, then, if time permitted, a modified game (**act/observe**). In order for student-teachers to respond to their pupils they required the ability to recognize the pupils' needs in a situation as it develops. Supervisor prompts were successful in encouraging student-teachers' use of general and selective feedback to pupils as they engaged in tasks. A prompt, however, was not effective in helping student-teachers perceive what the pupils could be gradually aiming towards in the modified versions of the adult games being played (**reflect**). To help student-teachers make connections between body management type activities (tag type games), equipment handling (closed or invariant skill manipulation of objects and equipment), game strategies,[5] game tactics,[6] and the ability to effectively use skills in game situations, summary sheets known as BESTAT (Body management, Equipment handling, Strategies, Tactics And Technique) were developed by the group (**re-plan**).

I took responsibility for authoring the BESTAT sheets making reference to Ellis (1985) and Almond (1986) for the classification of games. The BESTAT sheets listed aspects of territory or

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[5] This refers to the planned playing procedures for attaining the game objectives. The way of playing, i.e., initially you need to be consistent in court games as in tennis and squash, then you try to be consistent and place the ball to make it difficult for your opponent, etc.

[6] These are the practical maneuvers used to gain advantage over opponents or situations, i.e., hitting the ball short then long in court games.

invasion type games (i.e., football, soccer), court or net/wall type games (i.e., tennis, squash), and field or fielding/run type games (i.e., cricket, baseball). Each section of the BESTAT sheets listed generic components common to all games within that classification. For example, typical of territory-type games is the body management skill of sprinting and changing direction; whereas, rapidly changing direction in a small space by moving sideways, forwards and backwards is more typical of court games (see Hopper, 1994; Sanford-Smith & Hopper, 1996).

The group members used the BESTAT sheets to give a vocabulary to describe what children were doing and to focus on the possibilities for helping pupils play the games more effectively. This information also helped student-teachers to make the activities purposeful for playing the recognized adult game better. For example, a student-teacher pointed out that changing direction without falling was important in a modified flag-football game the children were playing, then started a tag game that concentrated on balance and change of direction. The pupils practiced a split step (feet shoulder width apart with weight leaning back) after running to enable themselves to have a solid base from which to change direction. This practice improved their agility in the tag game as well as in the flag-football game subsequently played. The tasks set by the student-teacher seemed to make more sense to the children, resulting in them buying-in much more to what was being taught (**act/observe**).

Cycles 5 and 6: Working from game situations

Starting to realize a "teaching games for understanding" (TGFU) approach.

Examining the BESTAT sheets and reflecting on discussions with their supervisors resulted in the student-teachers being more confident about working from game situations with the children (**act/observe**). This confidence led to more personal concerns being expressed by individual student-teachers regarding what they wanted to achieve (**reflect**). For example, some student-teachers wanted children to make more intelligent choices. They found that pupils tended to choose adult equipment even though they were unable to play the game with such equipment (**reflect**). The action research group decided that teaching children how to intelligently choose equipment initially involved providing only limited equipment choices (**re-plan**). The result was

that children played with the equipment provided and were more able to address the challenges set by the student-teacher (**act/observe**). It was concluded that though children complained about not being allowed to use adult size equipment, they soon learnt that playing with the modified (shorter, lighter or in a case of balls slower bouncing) equipment enabled them to play more vigorous and exciting games than before (**reflect**).

Student-teachers also tried to get the children thinking about what they were doing by asking focused questions such as, "Why do we need to change direction?"; "How does a wide base help you change direction?"; "What can a player do to stop an opponent from receiving a ball in space?"; or "What was the most effective way to hit a ball accurately?" (**re-plan**). These questions asked the pupils to think, explain, and show through demonstrations that they understood. Questioning also developed tactical awareness for pupils in game play. For example, earlier on in the courses the teacher defined all rules for games. The teacher introduced the games by showing and explaining them to the children. If a game was too easy the children considered it boring and if a game was too difficult some children did not participate. If the children had played the game before, depending on their previous experience, they considered it to be either brilliant or boring. Once the children began to determine initial rules and subsequent rule changes to make a game better they started to take responsibility for the game. Children started to realize the need for certain rules and how they could tactically take advantage of situations that rules created (**act/observe**).

One student-teacher indicated that initially she confused the children in her lessons when she tried a questioning approach. The children did not expect to be asked questions or to ask questions themselves, they would stand passively waiting to be told what to do. The children were not used to making decisions. In later lessons the children asked, "What happens if...?" She indicated that she was now able to respond to pupils' needs in a way that made sense (**reflect**).

Another student-teacher agreed with this perspective. When she had initially asked children about how they should score in a game, a child responded, "Don't you know how to play the game?" However, later in the course the same child had suggested a way to improve the slow-

pitch game by saying, "Well the game would work better if the batter did not have three strikes, only one, then the fielders would always be busy and the waiting batters would have less time to wait".

Though I have been an advocate of the Teaching Games for Understanding (TGFU) approach, and tended to teach within this model of teaching, as did my supervising colleagues, I did not tell students to teach in this way. Student-teachers were encouraged to teach the best way they could. It is my belief that supervisors modeling teaching behaviours as situations arose in classes enabled student-teachers to construct their own style of teaching within a TGFU model. Student-teachers' teaching constructions came from seeing situations as a teacher and feeling a change in lesson quality when the supervisors taught. At the beginning of the action research process all the supervisors avoided telling student-teachers what to do. Lesson planning sessions for a 50 minute lesson initially took over an hour to plan. During lesson planning, supervisors tried to explain possibilities and encourage student-teachers to come up with their own ideas based on what they thought the pupils needed to play a game more effectively.

Cycle 7: Blue print lesson plan

With this increased insight into possibilities for lessons, a concern arose about the need for detail in lesson planning (**reflect**). Student-teachers would list objectives related to the learning domains (cognitive, affective, social and psychomotor) but when teaching they were more focused upon managerial problems with children, equipment and the available space. The desire to respond to pupils as they responded to the learning environment tended to work against detailed lesson plans that indicated exactly what the children should be doing. As one student-teacher said, "You are told in your university courses to write a detailed lesson plan that seems to take a month to write but which you can scrap at a moment's notice if you need to -- sure you will." The group agreed that the need for detail in lesson planning was to help see what was possible, but until one had experience to reflect upon, then one had limited ability to see lesson needs and possibilities. The writing process prepared the student-teachers to see more in their lessons, especially if things did not go according to plan. The conclusion was that planning required the influence of

knowledge of real pupils to be meaningful, but detail in lesson planning was needed initially to enable a novice teacher to realize what was possible in a lesson. Reflections on the degree lesson plans met objectives guided the construction of subsequent lesson plans (**re-plan**). It was impossible to plan more than one lesson ahead for the student-teachers; however, the supervisors, based on their previous experience teaching games course, had a sense of what would be needed in the course being taught. In a sense the lesson plan was seen as a blue-print from which to work rather than as a map to follow.

Lesson planning became more flexible with student-teachers relying more on diagrams and less upon written descriptions of what they wanted to happen. Student-teachers were able to respond to the situations they created. Children started to play with ideas. For example, a supervisory teacher recalled how one student-teacher, Erin, taught batting-fielding type games with pupils of ten to eleven years of age (**act/observe**).

> The children's games had been moving towards baseball so Erin wanted to get them to use the body management skill of sliding into a base. Rather than telling the children to slide, a skill that can hurt especially on a smooth but hard wooden floor, she set up a tag game. Four children stood on mats that were two metres apart, the other eight children had to run through the mats without being tagged. Initially, with Erin's encouragement the children ran through the mats fast, some got through in the confusion, but in the first assault most of the children were tagged. In the second assault only 3 children were left. It looked like none of them had a chance. All three ran at the same time for different gaps. Two were immediately caught, but one pupil, Don, dove to the ground as he approached the mats sliding beneath the tagging pupil's hand. All the children were very impressed. Erin was excited. This was a 'teachable moment', one she had hoped for. She asked Don to demonstrate his slide emphasizing how he bent his knees, and while keeping his body rigid, took his lowered body weight on his hands, sliding forward. The class erupted with sliding bodies dusting the floor. Even Erin joined in. Some children found it difficult but repeatedly tried, after 2 or 3 minutes all the children could slide to some degree.

I watched the lesson. Erin owned the idea and responded to the moment. She told me it was a turning point, a point where she mfelt she had made a large step towards becoming a physical educator.

Phase 3: Teaching from "telling" to "creating need to know."

Cycles 8 and 9: Realizing theory of teaching by observing others teach

In the seventh and eighth lessons the community courses were used as the practical experience for one of the university courses engaged in the study of teaching of games to children. This use involved 15 different university students teaching the community courses with the action research student-teachers. The university students taught in groups of three — two team-teaching and one observing. Using the same process that had operated with the student-teachers at the beginning of the term, the university students taught with guidance from the now more experienced action research student-teachers (**plan**). The supervisors observed and appraised the teaching process for analysis after the lesson.

It was noticeable to the student-teachers that the university students wanted everything clearly defined in their lesson and wanted to be in complete control of the lesson (**act/observe**). This control ignored the possibility that some of the children might be able to do the skill being taught and tended to limit the potential for the unpredictable to happen. This resulted in children being herded around from task to task. The children seemed to have little sense of reason for their actions. The following extracts from the minutes highlight the student-teachers' observations:

> "Some teachers could be teaching frogs, no sense of difference in learners in their approach to teaching. In your lesson you need a sense of spontaneity, as in respond to the unpredictable. Children need to know what and why they are doing something so that it makes sense to them. Then again, too much calling in, not enough practices and play, is bad. You need to find the right balance. Don't get over-keen with lesson planning to control the lesson, let children have a sense of control; then children can ask questions for a reason."

However, the group agreed it was not easy to get responses from children, especially verbally. As one of the student-teachers said,

"Getting some children to answer questions was like pulling teeth. Some children would answer without a focus. Melissa [age 9], a pupil in my class would answer a question with a long preamble saying, 'Not important but...' I find when the lesson focus makes sense, practically as well as theoretically [verbal teaching] then the student answers to the teacher questions' make's sense."

The group agreed, Tara [another student-teacher] indicated;

"You have to go through chaos to get somewhere."

Susan [programme administrator] said,

"It is a paradigm shift. You develop new attitudes and beliefs about the learner. As Tom [supervisor] has indicated, in teaching 'you want to wean the learner from reliance upon you.'"

These extracts from the minutes of one meeting highlight the theoretical development of the group. The university students, who quite naturally felt unsure of themselves, found it difficult to allow children to learn from mistakes. Similar to what the student-teachers had done initially, the action research group noted that the university students seemed to dictate what the pupils learned, teaching from the basis of "telling" the pupils. The student-teachers wanted teaching based on the pupils' "need to know". It was felt that student-teachers' change from "telling" to "creating need to know" teaching came from a process of instructing based on a desire to respond to pupils' actions and ideas (**reflect**). The student-teachers purposely tried to create environments that encouraged pupils to make intelligent choices. When possible, student-teachers' teaching made links to previously played games. As student-teachers gained confidence in responding to pupils their approach to teaching became increasingly close to the "teaching games for understanding" (TGFU) method. This method has greatly influenced the teaching of games in Great Britain during the 1980's and had been taught to some of the student-teachers in the university culture. This approach advocates the teaching of modified games that allow learners to appreciate the game

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before being taught skills to improve their performance in the game. As Bunker and Thorpe (1986) say;

> The tendency is for teachers to teach 'how?' before they teach 'why?'....if the emphasis is shifted to tactical considerations in a game children will recognize that games can be interesting and enjoyable as they are helped and encouraged to make correct decisions based upon tactical awareness. At this point children should begin to see the need for, and relevance of, particular techniques as they are required in a game situation. (p. 7)

This link to some of the theoretical ideas taught at the university made sense to the student-teachers and related to what the university students were being taught. The student-teachers decided to focus their feedback to the university students based on a TGFU approach and their experiences coming to terms managing children and using this approach (**re-plan**). As a result of student-teachers expressing this connection the university students seemed to develop a stronger conviction for this approach allowing themselves to teach with a less autocratic style in their subsequent lesson (**act/observe**). It was noted by the student-teachers that they felt able to control the class for the university students by simply mentioning a child's name or staring at a child if he or she was mis-behaving, this gave student-teachers credibility with the university students and allowed the university students to focus on teaching rather than disciplining children (**reflect**).

I feel that this supportive environment allowed the university students , early in their teaching career, to try to teach using a more responsive and questioning approach.

In this cycle there seemed to be three levels of responsibility, (1) The supervisor teacher who had ultimate responsibility for the lessons, (2) The student-teacher who had earned responsibility for the lessons through their efforts to teach in a way to which the children would respond, (3) The university students who were keen to have the responsibility to teach but who lacked experience and knowledge of the particular children being taught in the class. It is my opinion that these levels of responsibility allowed the student-teachers to recognize their theoretical and

practical development from where they had come (university students) to where they were heading (supervisors).

The student-teachers knew what they were doing differently from the university students, and why it was more effective. The university students all taught better in subsequent lessons. The university students commented that the feedback enabled them to re-plan their second lesson with a clear sense of what could be done to improve. The student-teachers with the supervisory teacher learnt to express how they were teaching and explain why it worked (**reflect**).

DISCUSSION AND RECOMMENDATIONS: INTERPRETING THE PHASES

The purpose of this study was to examine and enable student-teachers to effectively teach games. A secondary purpose was to evolve the relationship between the supervisors and the student-teachers in an attempt to understand how this relationship could improve the supervision, practice and understanding of the effective teaching of games.

Between the supervisors and student-teachers a difficulty arose as to who should lead a lesson to ensure the pupils had a quality experience. This difficulty was overcome through group agreement on a process of intervention that gave ownership of the lesson to the student-teacher but responsibility for the lesson quality to the supervisor. Authority over the lesson was shared based on the needs of the children being taught. Student-teachers gained complete ownership of the lesson when they showed the capacity to respond to pupils and reflectively plan lessons appropriately to the needs of pupils. The practical action research process allowed the student-teachers to free themselves from the didactic teaching they had experienced in physical education as pupils, and learn from the progressive but prescriptive teacher education they had experienced as students at the university. As one student-teacher commented, "I learnt more from this experience than all four years at university." This student-teacher learnt how to make sense of what she had been learning at university from her developing practical knowledge of teaching games.

To interpret the action research process Figures 1, 2 and 3 have been developed. These Figures summarize the action research process. The idea of effective teaching of games was

the focus of conversation. Initially this conversation grew from difficulties relating to handling children, this resulted in the student teachers relying on the supervisors to teach lessons. Student-teachers observed supervisors teaching by setting tasks then responding to the pupils. This form of teaching was seen as the TGFU approach. Within the action research group meetings the conversation focused on a desire to respond to what children were able to do. Finally, when inexperienced colleagues from university taught in their classes student-teachers had a new perspective in the action research conversation, now they had to supervise but have responsibility for the quality of the lesson. The conversation then revolved around how to help others teach in a way that was not so didactic and more responsive to what children did. The conversation went through three phases characterized by the three forms of action research described earlier by Tripp (1990). Using Kemmis and McTaggart (1982) criteria for action research the development of this action research process will be analyzed.

Insert Figure 1 about here.

In Figure 1 we have the first three cycles of the action research process. These cycles embody a more technical approach to action research. The supervisors as the 'experts' directed planning and teaching. This was not the desire of the supervisors but in response to the request of the student-teachers. Similarly, Almond (1987) indicated when trying to implement an action research project in schools, "all the time I come in contact with teachers who want to be told what to do, how to do it, and they ask for recipe-based guidelines" (p. 4). Student-teachers were interested in knowing what and how to teach effectively. As Tinning (1992) states, "the human interests of this form of action research are technical (they focus on predication and control), and the knowledge form is instrumental (concerned with means-end efficiency)" (p. 4).

With encouragement student-teachers taught more of the lessons but before they taught they came to appreciate how the supervisors responded to what the pupils did. However, this ability was seen as magical, student-teachers did not understand how to do this or what to do to enabled themselves to respond to pupils. This ability to respond to the play of children became a fundamental focus to understand the practice of effective teaching of games. During this phase the situation of team-teaching was negotiated between the supervisors and the student-teachers. However, supervisors still had ultimate power over lessons. Based on Kemmis ad McTaggart (1982) criteria for research to be considered as action research, the student-teachers were making an improvement in their practice, but they did not fully understand how they were improving. The situation was still one where the supervisors were in charge, however the team-teaching approach allowed the student-teachers to gradually take responsibility for the lesson as their confidence grew. At this point the research could not be considered as action research.

Insert Figure 2 about here

This initial phase of the action research process lay the foundation for the second phase summarized in Figure 2. The four cycles of this phase are more characteristic of practical action research. As student-teachers took more responsibility for teaching, their lesson planning became more detailed; they were able to plan how to handle equipment, space, pupils and important information. As student-teachers took responsibility, tried things out, modified and scrapped plans as situations arose, they started to direct the action research conversation to more personal needs. A common focus was getting all the children to buy into what was being taught. The action research group members had learnt that they could not force children to do what they had planned, but they could guide what children did towards better ways of playing. In a Socratic style this need to know how to respond to the play of children resulted in the development of the BESTAT

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sheets. These sheets enabled student-teachers to plan and teach lessons in a more responsive way. Student-teachers did not require supervisors to teach, but more to observe and give guidance to aspects of the lesson to which they had personal concern.

In this phase student-teachers were coming to terms with interpreting how they taught based on a belief that all children should be successfully involved in physical activity. Though student-teachers taught better and were far more able to articulate what they needed to teach more effectively, the supervisors were still in a situation of power with ultimate responsibility for the lesson. Linking to Tinning's (1992) reading of practical action research, "the aim is the ultimate autonomy of the teachers themselves to conceive and implement such projects on their own; to be critically informed, self-reflecting practitioners" (p. 5). Student-teachers were taking ownership for the project of teaching and were focusing the observers attention to aspects of the lesson they wished to be assessed. They were reflecting on themselves as teachers, taking an increasing responsibility for planning, teaching and observation of lessons. Based on Kemmis and McTaggart's (1982) criteria the research had become action research with student-teachers improving their practice, understanding how and why improvements were possible and operating in a situation where the supervisor was a colleague offer observations as requested.

Insert Figure 3 about here.

In Figure 3 the final phase of the action research process is summarized. The conversation focused on how to assist inexperienced university students to teach the classes the student-teachers had taught. In this phase, student-teachers made a connection to where they had come from to where they were. In communicating to the university students the student-teachers had a sense of their reality as teachers and the reality of the apprehensive university students. The student-teachers were able to connect to the theory that the university students were learning. The student-

teachers were able to offer sensitive criticisms on the university students teaching based on what they recognized as their own difficulties when they started teaching in the programme. Student-teachers were able to offer practical remedies to concerns the university students had discovered in the reality of teaching. Student-teachers did not make judgements on whether a lesson was good, bad or indifferent, they made comments that helped the universities students become more aware of what was happening in their lessons. Comments such as if pupils seem to be fidgety, not concentrating when you speak, try to keep your explanation to a minimum then respond to what the pupils do; if a child seems to be continuous deviant he or she is probably seeking attention, after a warning remove the pupil, then praise the pupil when he or she returns to the lesson. These were comments similar to those brought up by the supervisors in phase 1 of the action research project. As Tinning (1992b) describes "in terms of knowledge and human interest, emancipatory action research is clearly aimed at criticism and liberation (from restrictive thoughts and practices) through a process of critical reflection" (p. 5). Critical reflection grew from mutual concerns between supervisors, student-teachers and later the university students for discovering effective ways to teach games to particular children. This mutual concern, with an appreciation of the difficulties in specific contexts for each teacher, allowed the group to share ideas and support attempts at innovative practice. By the final phase the group was self-directing, nobody had the answers but everybody had ideas. Student-teachers did not copy how their supervisor taught, student-teachers taught based on a belief in responsive teaching. University students did not teach the same as the student-teachers, but they did follow advice given by the student-teachers. The university students felt free to try things out. The university students were not worried about passing or failing in any way, if things went wrong in their lesson the student-teachers were always ready and willing to help out.

In Nettle's (1988) article on a teacher supervision innovation in teacher preparation he explains the benefits of third year students supervising first year students engaged in micro-teaching. He states that "third year students believed that their involvement as a 'supervisor/teacher' helped them to a better understanding of teaching in general and of their own teaching in

particular...opportunity to consolidate skills learned in previous courses" (p. 131). This same realization was articulated by the student-teachers in the action research project. Similarly, the supervisors discovered how to help and support student-teachers in a way that allowed them to develop into observers who assisted, not as observers who evaluated.

The action research process moved from a technical phrase where student-teachers asked what they should do, through a practical phase where student-teachers shaped how supervisors supported them, to an emancipatory phase where student-teachers became supervisors who guided less experienced peers into more progressive liberating approaches to teaching. The conversation that centred the action research group focused on changing practice from a didactic style to a more responsive style of teaching in games. By maintaining the content of the conversation from week to week, as advocated by Rorty (Arcilla, 1990; Beyer, 1986; Hostetler, 1992), the conversation developed based on many perspectives from participants sharing stories, concerns and plans for evolving their teaching. The action research process allowed "new" knowledge on theories of teaching to be grounded within the community of discussants. As Elliot (1991) comments "the 'theories' of learning, teaching, and evaluation...are derived from our attempts to bring about change, rather than from out professional training in universities and colleges of education" (p. 3)

The collaborative support from the action research group allowed the conversation to be rich with the narratives of informative pedagogical episodes. These episodes enabled the action research by strengthening the participants grasp of what called them into teaching - that is, the desire for children to enjoy learning through playing games.

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References

Almond, L. (1986). Reflecting on themes: A games classification. In R. Thorpe, D. Bunker, & L. Almond (Eds.), Rethinking games teaching, (pp. 71-73). Loughborough: University of Technology.

Almond, L. (1987). Action research in England since 1970 (paper presented at the AIESEP World Convention No. Universite du Quebec a Trois-Riveres, Canada.

Altrichter, H., Psch, P., & Somekh, B. (1993). Teachers investigate their work: An introduction to the methods of action research. London and New York: Routledge.

Arcilla, R. (1990). Edification, conversation, and Narrative: Rortyan motifs for philosophy of education. Educational Theory, 40(1), 35-39.

Beyer, L. (1986). Beyond elitism and technicism: Teacher education as practical philosophy. Journal of Teacher Education, 37(2), 37-41.

Britzman, D. (1991). Practice makes practice: A critical study of learning to teach. Albany: State University of New York press.

Bunker, D.,& .Thorpe, R, (1986). The curriculum model. In R. Thorpe, D. Bunker, & L. Almond (Eds.), Rethinking games teaching, (pp. 7-10). Loughborough: University of Technology.

Carter, K., Sabers, D., Pinnegar, S., & Berliner, D. (1987). Processing and using information about students: A study of expert, novice, and postulant teachers. Teaching and Teacher Education, 3, 147-157.

Denscombe, M. (1982). The 'Hidden Pedagogy' and its implications for teacher training. British Journal of Sociology of Education, 3(3), 249-265.

Elliot, J. (1991). Action research for educational change. Milton Keynes: Open University Press.

Ellis, M. (1985). Classification of Games. Unpublished paper Department of Physical Education and Sport Studies, University of Alberta: Edmonton.

Evans, J. (1988). Teachers, teaching and control in physical education. London: The Falmer Press.

Evans, J., & Davies, B. (1986). Sociology, schooling and physical education. In J. Evans (Eds.), Physical education, sport and schooling. Studies in the sociology of physical education. London: The Falmer Press.

Freire, P. (1982). Pedagogy of the oppressed. New York: Continuum.

Giroux, H. (1980). Teacher education and the ideology of social control. Journal of Education, 162, 5-27.

Griffey, D., & Housner, L. (1991). Differences between experienced and inexperienced teachers' planning, decisions, interactions, student engagement, and instructional climate. Research Quarterly for Exercise and Sport, 62, 196-204.

Habermas, J. (1973). Ligitimation Crisis (McCarthy, T, Trans.). Boston: Beacon Press.

Hopper, T. (1994). Can we play the game? RUNNER, 32(2), 21-22.

Hostetler, K. (1992). Rorty and collaborative inquiry in education: Concensus, conflict, and conversation. Educational Theory, 42(3), 285-298.

Kagan, D. (1992). Professional growth among preservice and beginning teachers. Review of educational research, 62(2), 129-169.

Kemmis, S., & McTaggart, R. (1988). The action research planner (3rd ed.). Victoria: Deakin University.

Laws, C. (1994). Rhetorical justification for new approaches to teaching games - Are physical education teachers deluding themselves? In F. Bell & G. Van Gyn (Ed.), Proceedings for the 10th Commonwealth & International Scientific Congress, (pp. 175-180). Victoria, British Columbia: University of Victoria.

Nettle, T. (1988). A teaching and learning approach to supervision within teacher education program. Journal of Education for Teaching, 14(2), 125-133.

Peterson, P., & Comeaux, M. (1987). Teachers' schemata for classroom events: The mental scaffolding of teachers' thinking during classroom instruction. Teaching and Teacher Education, 3, 319-331.

Rovegno, I. (1992a). Learning a new curricular approach: Mechanisms of knowledge acquisition in preservice teachers. Teaching and Teacher Education, 8, 253-264.

Rovegno, I. (1992b). Learning to teach in a field-based methods course: The development of pedagogical content knowledge. Teaching and Teacher Education, 8, 69-82.

Sanford-Smith, K., & Hopper, T. (1996). Teaching the Mind and Body: Connecting Physial Education and Language Arts. RUNNER, 34(1), (In press).

Schön, D. (1987). Educating the reflective practitioner: Toward a new design for teaching and learning in the professions. San Francisco: Jossey-Bass.

Skrine, E. (1994). Individual study: Effective teaching. Unpublished manuscript, University of Alberta, Department of Physical Education and Sport Studies, Edmonton.

Sparkes, A. (1993). Challenging technical rationality in physical education: The potential of a life history approach. Physical Education Review, 16(2), 102-121.

Sparkes, A. (1995). Writing people: Relfections on the dual crises of representation and legitimation in qualitative inquiry. QUEST, 158-195.

Sparkes, A. (Ed.). (1992). Research in physical education and sport: Exploring alternative visions. London: The Falmer Press.

Spradley, J. (1980). Participant observer. New York: Holt, Rinehart and Winston.

Thorpe, R. B., D; Almond,L (Ed.). (1986). Rethinking games teaching. Loughborough: University of Technology, Loughborough.

Tinning, R. I. (1987). Beyond the development of a utilitarian teaching perspective: An Australian case study of action research in teacher preparation. In G. T. Barrette, R. S. Feingold, C. R. Rees, & M. Pieron (Eds.), Myths, models, methods in sport pedagogy (pp. 113-122). Champaign, Illinois: Human Kinetics.

Tinning, R. I. (1992a). Action research as epistemology and practice: Towards transformative educational practice in physical education. In A. C. Sparkes (Ed.), Research in physical education and sport (pp. 188-209). London: The Falmer Press.

Tinning, R. I. (1992b). Reading action research: Notes on knowledge and human interests. QUEST, 44, 1-14.

Tripp, D. (1990). Socially critical action research. Theory Into Practice, XXIX(3), 158-166.

Van Maanen, J. (1988). Tales of the field. Chicago and London: The University of Chicago Press.

Zeichner, K., & Tabachnick, B. (1981). Are the effects of university teacher education 'washed out' by school experiences? Journal of Teacher Education, 32(2), 7-11.

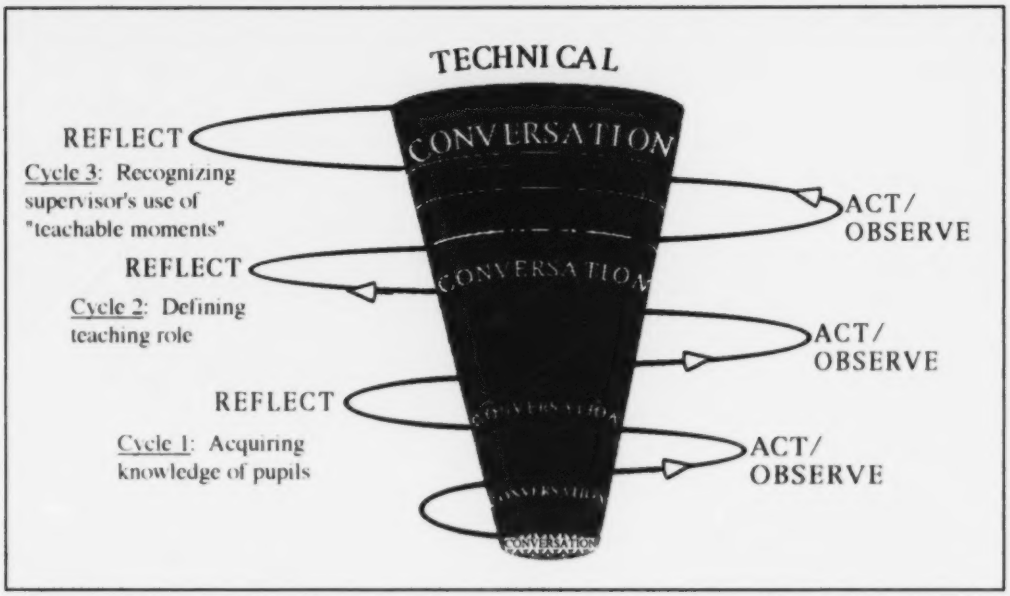

Figure 1. Phase 1: Following supervisors technical advise on teaching as the role of teaching is negociated.

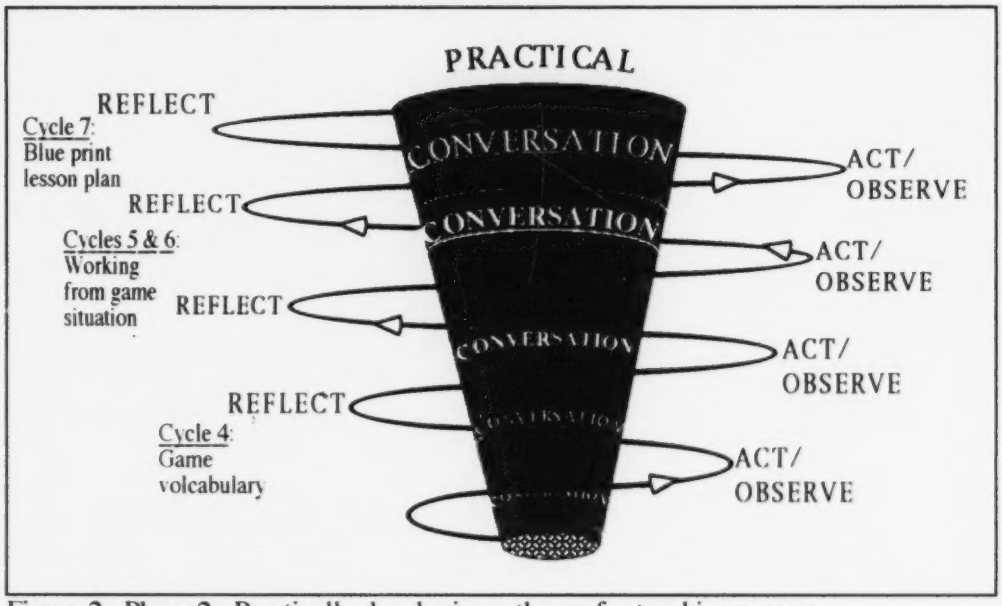

Figure 2. Phase 2: Practically developing a theory for teaching games

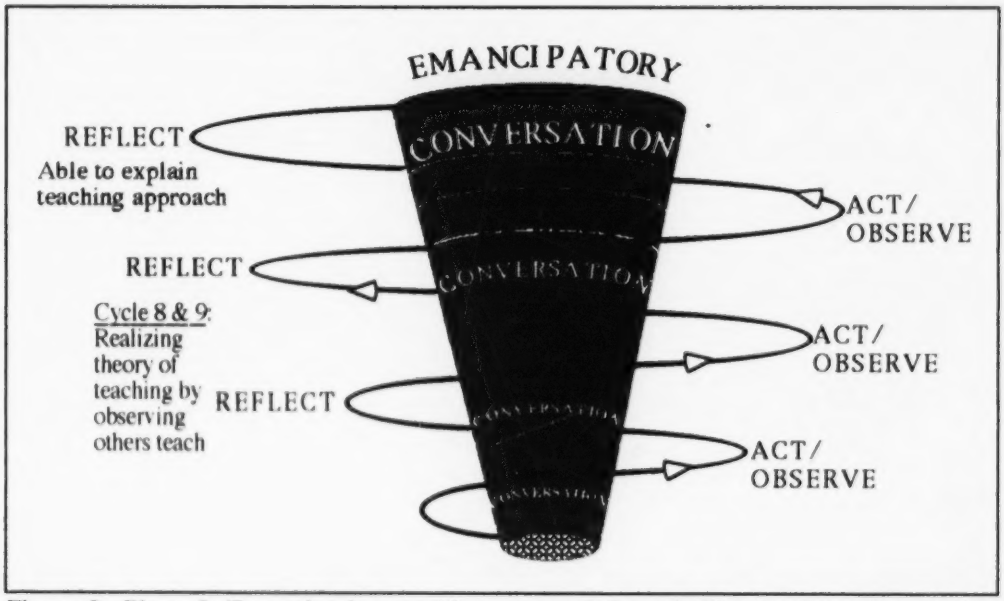

Figure 3. Phase 3: Emancipating teaching approach from "telling" to "creating need to know"